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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,997	02/02/2006	Michael Heckmeier	MERCK-3119	9634

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EXAMINER	
WU, SHEAN CHIU	

ART UNIT	PAPER NUMBER
1795	

MAIL DATE	DELIVERY MODE
07/01/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/566,997	HECKMEIER ET AL.	
	Examiner	Art Unit	
	Shean C. Wu	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 March 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9 and 11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9 and 11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The compounds of formulae IA-3 and IA-18 are excluded from claim 1, which is a critical ingredient of the present invention. See examples M1-M5 and M7.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 3-4 and 8-9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andou et al. (US 6,007,740 or 6,187,223).

The reference discloses a compound of formula (1) having a difluoromethyl ether group, which has good liquid crystal properties. The reference liquid crystal composition comprising a compound of formula (1) is useful for liquid crystal display devices. The formula (1) reads on the present formula IA and the present formula I is encompassed by the reference formula (3), particular (3-1) to (3-3) on col. 27 and (5-1) on col. 38 of US

'740. The reference compositions 8, 28 and use example 26 comprise 38%, 31% and 36% of the present formula I, respectively.

Composition Example 8	
3-HBEB(F)---OCF2CFHCF3	5.0%
5-HBCF2OB(F)---OCF2CFHCF3	5.0%
5-BEB(F)---C	5.0%
V---HB---C	11.0%
5-PyB---C	5.0%
4-BB-3	11.0%
3-HH-2V	10.0%
5-HH---V	15.0%
V---HH-3	7.0%
V2-BHB-1	10.0%
3-BHB-1	4.0%
1V2-HBB-2	10.0%
3-GHEBH-2	5.0%

Composition Example 28	
3-HBCF2OB(F)---OCF2CF2H	3.0%
3-BEBB(F)---OCF2CF2H	3.0%
3-HBEB(F)---OCF2CFHCF3	3.0%
3-BEBO)---C	8.0%
3-HB---C	8.0%
V-HB---C	8.0%
1V-HB---C	8.0%
3-HB---O2	3.0%
3-HH-2V	14.0%
3-HH-2V1	7.0%
V2-HHB-1	10.0%
3-HBB-1	5.0%
3-HHEB---F	7.0%
3-H2BTB-2	2.0%
3-H2BTB-3	6.0%
3-H2BTB-4	5.0%

Use Example 26	
5-HBCF2OB(F,F)---F	5.0%
3-BEB(F)---C	8.0%
3-HB---C	8.0%
V-HB---C	8.0%
1V-HB---C	8.0%
3-HB-O2	3.0%
3-HH-2V	14.0%
3-HB-2V1	7.0%
V2-HHB-1	15.0%
3-BHB-1	5.0%
3-HHEB---F	2.0%
3-H2BTB-2	6.0%

3-HEBTB-3	6.0%
3-HEBTB-4	5.0%
NI = 95.6 (° C.)	
η = 15.7 (mPa · s)	
Δn = 0.133	
Δε = 9.0	
Vth = 2.12 (V)	

The 3-HB-O2 reads on the present formula RV.

The reference differs from the present invention in that the present invention is not exemplified by the reference. The present formula IA is not disclosed by the reference compositions above but the present formula IA is disclosed by the reference formulae 1-14-1, 1-14-3, 1-14-4, 1-17-1, 1-17-3, 1-17-4 and 4-16 to 4-24. Because these formulae are equivalent to the first compound of above examples, therefore, it would have been obvious to those skilled in the art to substitute these formulae for the first compound of above examples to arrive at the claimed invention.

4. Claims 1-9 and 11 are rejected under 35 U.S.C. 103(a) as being obvious over Heckmeier et al. (US 2004/0,173,776).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or

(3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2). See formulae IA, IA-1 to IA-36, II-VI, Ea-Ef and RI-RIX. The present formula I is encompassed by the reference formula II.

5. Claims 1-9 and 11 are rejected under 35 U.S.C. 103(a) as being obvious over Heckmeier et al. Heckmeier et al. (US 2003/0,234,384 or 2005/0,040,365).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the

reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2). See formulae I, IA, IA-1 to IA-25, II-VI, Ea-Ed and RI-RIX.

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1-9 and 11 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 7,175,891. Although the conflicting claims are not identical, they are not patentably distinct from each other because the present claims encompass the claims of US '891.

8. Claims 1-9 and 11 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-21 of U.S. Patent No. 7,105,210. Although the conflicting claims are not identical, they are not patentably distinct from each other because the parts of the claimed subject matters between the present invention and US '210 are the same.

9. Claims 1-9 and 11 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 7,056,561. Although the conflicting claims are not identical, they are not patentably distinct from each other because the parts of the claimed subject matters between the present invention and US '561 are the same.

Response to Arguments

10. Applicant's arguments, see remarks, filed 3/27/08, with respect to the rejections under Miyairi, Takeshita, Kirsch and Andou (US '881) have been fully considered and are persuasive. Therefore, the rejections have been withdrawn. However, upon further consideration, new grounds of rejection are made in sections 1, 3-5 and 7-9 above. Applicant's attention is directed to the compounds R^1 in formula I of US '891, which can be alkenyl group. Also see the claim 8. See R^0 in formula II and claim10 of US '210. It the same for US '561.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shean C. Wu whose telephone number is 571-272-1393. The examiner can normally be reached on 10:30 AM to 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Shean C Wu/
Primary Examiner, Art Unit 1795

scw